ALTO SHAAM®

# Hot Food Holding Cabinet, Electric

## Model:

## 500–PH/GD

- INSTALLATION
- OPERATION
- MAINTENANCE

HALO HEAT®

24•7 Your Service Hotline 1-800-558-8744

**W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 USA**
PHONE: 262.251.3800 • 800.558.8744 USA/CANADA FAX: 262.251.7067 • 800.329.8744 U.S.A. ONLY
www.alto-shaam.com

PRINTED IN U.S.A.

#820 • 05/08

## DELIVERY

This Alto-Shaam appliance has been thoroughly tested and inspected to insure only the highest quality unit is provided. Upon receipt, check for any possible shipping damage and report it at once to the delivering carrier. ***See Transportation Damage and Claims section located in this manual.***

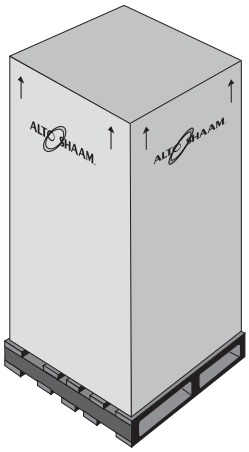
This appliance, complete with unattached items and accessories, may have been delivered in one or more packages. Check to ensure that all standard items and options have been received with each model as ordered.

Save all the information and instructions packed with the appliance. Complete and return the warranty card to the factory as soon as possible to assure prompt service in the event of a warranty parts and labor claim.

This manual must be read and understood by all people using or installing the equipment model. Contact the Alto-Shaam service department if you have any questions concerning installation, operation, or maintenance.

**NOTE:** All claims for warranty must include the full model number and serial number of the unit.

## UNPACKING



1. Carefully remove the appliance from the carton or crate.

   **NOTE:** Do not discard the carton and other packaging material until you have inspected the unit for hidden damage and tested it for proper operation.

2. Read all instructions in this manual carefully before initiating the installation of this appliance.

   DO NOT DISCARD THIS MANUAL.
   This manual is considered to be part of the appliance and is to be provided to the owner or manager of the business or to the person responsible for training operators. ***Additional manuals are available from the Alto-Shaam service department.***

3. Remove all protective plastic film, packaging materials, and accessories from the appliance before connecting electrical power. Store any accessories in a convenient place for future use.

## SAFETY PROCEDURES AND PRECAUTIONS

Knowledge of proper procedures is essential to the safe operation of electrically and/or gas energized equipment. In accordance with generally accepted product safety labeling guidelines for potential hazards, the following signal words and symbols may be used throughout this manual.

**DANGER**

**Used to indicate the presence of a hazard that WILL cause severe personal injury, death, or substantial property damage if the warning included with this symbol is ignored.**

**WARNING**

**Used to indicate the presence of a hazard that CAN cause personal injury, possible death, or major property damage if the warning included with this symbol is ignored.**

**CAUTION**

**Used to indicate the presence of a hazard that can or will cause minor or moderate personal injury or property damage if the warning included with this symbol is ignored.**

**CAUTION**

**Used to indicate the presence of a hazard that can or will cause minor personal injury, property damage, or a potential unsafe practice if the warning included with this symbol is ignored.**

**NOTE:** Used to notify personnel of installation, operation, or maintenance information that is important but not hazard related.

1. This appliance is intended to hold or process foods for the purpose of human consumption. No other use for this appliance is authorized or recommended.
2. This appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users.
3. Any troubleshooting guides, component views, and parts lists included in this manual are for general reference only and are intended for use by qualified technical personnel.
4. This manual should be considered a permanent part of this appliance. This manual and all supplied instructions, diagrams, schematics, parts lists, notices, and labels must remain with the appliance if the item is sold or moved to another location.

**NOTE**

**For equipment delivered for use in any location regulated by the following directive:**

**DO NOT DISPOSE OF ELECTIRCAL OR ELECTRONIC EQUIPMENT WITH OTHER MUNICIPAL WASTE.**

# INSTALLATION

## SITE INSTALLATION

This appliance, complete with unattached items and accessories, may be delivered in one or more packages. Check to insure that all acessories that were ordered have been received with the unit.

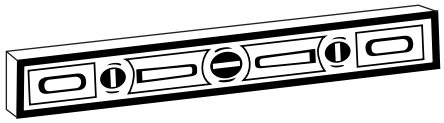
Alto-Shaam holding cabinets are designed for the purpose of maintaining hot food at a temperature for safe consumption. The unit must be installed on a level surface in a location that will permit the equipment to function for its intended purpose and allow adequate access for proper cleaning and maintenance.

In order to maintain standards established by the National Sanitation Foundation, all stationary counter-mounted equipment must be secured flush to the counter and the entire base sealed to the counter with NSF approved sealant or equipped with 4" (102mm) legs to provide minimum unobstructed space beneath the unit. Warranty will become null and void if these directions are not followed.

| CLEARANCE REQUIREMENTS |
|---|
| 3-inches (76mm) at the back |
| 2-inches (51mm) at the top |
| 1-inch (25mm) at both sides |

| NET WEIGHT |
|---|
| 60 lb. (27 kg) |

The appliance must not be installed in any area where it will be affected by steam, grease, dripping water, high temperatures, or any other severely adverse conditions.



Level the appliance from side-to-side and front-to-back with the use of a spirit level.

**CAUTION**

**TO PREVENT PERSONAL INJURY, USE CAUTION WHEN MOVING OR LEVELING THIS APPLIANCE.**

**DANGER**

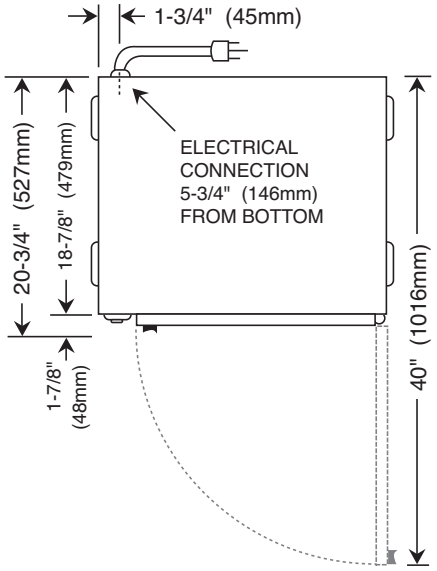
**IMPROPER INSTALLATION, ALTERATION, ADJUSTMENT, SERVICE, OR MAINTENANCE COULD RESULT IN SEVERE INJURY, DEATH OR CAUSE PROPERTY DAMAGE.**

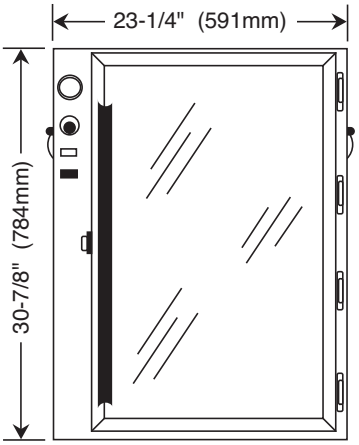
**READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.**

# INSTALLATION

## SITE INSTALLATION

### Outside Dimensions




| OPTIONS & ACCESSORIES | |
|---|---|
| Caster Stand Assembly | 15633 |
| Leg Stand Assembly | 15634 |
| Shelf, Chrome plate, Wire | SH-2102 |
| Solid door FACTORY INSTALLATION ONLY | 15248 |

## ELECTRICAL INSTALLATION

**1.** An identification tag is permanently mounted on the cabinet.

**⚠ DANGER**

**ENSURE POWER SOURCE MATCHES VOLTAGE STAMPED ON APPLIANCE NAMEPLATE.**

**2.** Plug the unit into a properly grounded receptacle ONLY. Arcing will occur when connecting or disconnecting the unit unless all controls are in the "OFF" position.

**3.** Position the unit so the cord is easily accessible in case of any emergencies. If necessary, a proper receptacle or outlet configuration, as required for the unit, must be installed by a licensed electrician in accordance with applicable, local electrical codes.

**⚠ DANGER**

**ELECTRICAL CONNECTIONS MUST BE MADE BY A QUALIFIED SERVICE TECHNICIAN IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES.**

**230V:**

To prevent an electrical shock hazard between the appliance and other appliances or metal parts in close vicinity, an equalization-bonding stud is provided. An equalization bonding lead must be connected to this stud and the other appliances / metal parts to provide sufficient protection against potential difference. The terminal is marked with the following symbol.

**NOTE:** The appliance must be connected to an electrical circuit that is protected by an external GFCI outlet. ⏚

**DANGER**

**To avoid electrical shock, this appliance MUST be adequately grounded in accordance with local electrical codes or, in the absence of local codes, with the current edition of the National Electrical Code ANSI/NFPA No. 70. In Canada, all electrical connections are to be made in according with CSA C22.1, Canadian Electrical Code Part 1 or local codes.**

**DANGER**

**IMPROPER INSTALLATION, ALTERATION, ADJUSTMENT, SERVICE, OR MAINTENANCE COULD RESULT IN SEVERE INJURY, DEATH OR CAUSE PROPERTY DAMAGE.**

**READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.**

**ELECTRICAL**

| VOLTAGE | PHASE | CYCLE/HZ | AMPS | kW | |
|---|---|---|---|---|---|
| 125 | 1 | 50/60 | 8.0 | 1.00 | NEMA 5-15P, 15A-125V PLUG |
| 230 | 1 | 50/60 | 4.1 | .95 | NEMA 6-15P, 15A-250V PLUG (USA ONLY) |
| | | | | | CEE 7/7, 220-230V PLUG |

# OPERATION

## USER SAFETY INFORMATION

This appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users.

**Before Initial Use:**

Clean appliance with a clean, damp cloth and mild soap solution. Glass cleaner or distilled vinegar can be used on the glass. Clean and install the cabinet wire shelves.

1. **Make sure the unit is connected to the appropriate power source.**

2. **Turn thermostat to 200°F (93°C) and preheat for 30 minutes.**

   When the thermostat is turned clockwise to an "ON" position, the indicator light will illuminate and will remain lit as long as the unit is calling for heat.

   The indicator light will go OUT when the air temperature inside the unit reaches the temperature set by the operator. It will then cycle "ON/OFF" at this holding point. Verify the full preheated temperature with the holding temperature gauge located on the control panel of the cabinet.

3. **Load the cabinet with hot food only.**

   The purpose of the holding cabinet is to maintain hot food at proper serving temperature. Only hot food should be placed into the cabinet. Before loading the cabinet with food, use a food thermometer to make certain all products are at an internal temperature range of 140° to 160°F (60° to 71°C). Any food product not within the proper temperature range should be heated before loading into the holding cabinet.

4. **Reset the thermostat to 160°F (71°C).**

   Check to make certain the cabinet door is securely closed, and reset the thermostat to 160°F (71°C). THIS WILL NOT NECESSARILY BE THE FINAL SETTING. The proper temperature range for the products being held will depend on the type and quantity of product. When holding food for prolonged periods, it is advisable to periodically check the internal temperature of each item with a food thermometer to assure maintenance of the proper temperature range of 140° to 160°F (60° to 71°C).

   - ✧ **Use hand protection when handling hot items.**
   - ✧ **Be certain only hot foods are placed into the cabinet.**
   - ✧ **To avoid personal injury and damage to the unit, treat glass with care. Remember –– glass can shatter.**

**CAUTION**

**METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.**

| PRODUCT CAPACITY |
| --- |
| MAXIMUM: Thirteen (13) 16" (406mm) Pizzas<br>MAXIMUM WEIGHT EACH PIZZA: 2 lbs. (,9kg) |

### HEATING CHARACTERISTICS

The cabinet is equipped with a special, low heat density, heating cable. Through the Halo Heat concept, the heating cable is mounted against the walls of the warming compartment to provide an evenly applied, thermostat controlled, heat source. The design and operational characteristics of the cabinet eliminate the need for a moisture pan or a heat circulating fan. Through even heat application, the quality of a food product is maintained up to several hours.

## GENERAL HOLDING GUIDELINES

Chefs, cooks and other specialized food service personnel employ varied methods of cooking. Proper holding temperatures for a specific food product must be based on the moisture content of the product, product density, volume, and proper serving temperatures. Safe holding temperatures must also be correlated with palatability in determining the length of holding time for a specific product.

Halo Heat maintains the maximum amount of product moisture content without the addition of water, water vapor, or steam. Maintaining maximum natural product moisture preserves the natural flavor of the product and provides a more genuine taste. In addition to product moisture retention, the gentle properties of Halo Heat maintain a consistent temperature throughout the cabinet without the necessity of a heat distribution fan, thereby preventing further moisture loss due to evaporation or dehydration.

When product is removed from a high temperature cooking environment for immediate transfer into equipment with the lower temperature required for hot food holding, condensation can form on the outside of the product and on the inside of plastic containers used in self-service applications. Allowing the product to release the initial steam and heat produced by high temperature cooking can alleviate this condition. To preserve the safety and quality of freshly cooked foods however, a maximum of 1 to 2 minutes must be the only time period allowed for the initial heat to be released from the product.

This unit is equipped with a thermostat control between 60° and 200°F (16° and 93°C). If the unit is equipped with vents, close the vents for moist holding and open the vents for crisp holding. Use a metal-stemmed thermometer to measure the internal temperature of the product being held. Adjust the thermostat setting to achieve the best overall setting based on internal product temperature.

**HOLDING TEMPERATURE RANGE**

| MEAT | FAHRENHEIT | CELSIUS |
|---|---|---|
| BEEF ROAST — Rare | 130°F | 54°C |
| BEEF ROAST — Med/Well Done | 155°F | 68°C |
| BEEF BRISKET | 160° — 175°F | 71° — 79°C |
| CORN BEEF | 160° — 175°F | 71° — 79°C |
| PASTRAMI | 160° — 175°F | 71° — 79°C |
| PRIME RIB — Rare | 130°F | 54°C |
| STEAKS — Broiled/Fried | 140° — 160°F | 60° — 71°C |
| RIBS — Beef or Pork | 160°F | 71°C |
| VEAL | 160° — 175°F | 71° — 79°C |
| HAM | 160° — 175°F | 71° — 79°C |
| PORK | 160° — 175°F | 71° — 79°C |
| LAMB | 160° — 175°F | 71° — 79°C |
| **POULTRY** | | |
| CHICKEN — Fried/Baked | 160° — 175°F | 71° — 79°C |
| DUCK | 160° — 175°F | 71° — 79°C |
| TURKEY | 160° — 175°F | 71° — 79°C |
| GENERAL | 160° — 175°F | 71° — 79°C |
| **FISH/SEAFOOD** | | |
| FISH — Baked/Fried | 160° — 175°F | 71° — 79°C |
| LOBSTER | 160° — 175°F | 71° — 79°C |
| SHRIMP — Fried | 160° — 175°F | 71° — 79°C |
| **BAKED GOODS** | | |
| BREADS/ROLLS | 120° — 140°F | 49° — 60°C |
| **MISCELLANEOUS** | | |
| CASSEROLES | 160° — 175°F | 71° — 79°C |
| DOUGH — Proofing | 80° — 100°F | 27° — 38°C |
| EGGS —Fried | 150° — 160°F | 66° — 71°C |
| FROZEN ENTREES | 160° — 175°F | 71° — 79°C |
| HORS D'OEUVRES | 160° — 180°F | 71° — 82°C |
| PASTA | 160° — 180°F | 71° — 82°C |
| PIZZA | 160° — 180°F | 71° — 82°C |
| POTATOES | 180°F | 82°C |
| PLATED MEALS | 140° — 165°F | 60°— 74°C |
| SAUCES | 140° — 200°F | 60° — 93°C |
| SOUP | 140° — 200°F | 60° — 93°C |
| VEGETABLES | 160° — 175°F | 71° — 79°C |

**THE HOLDING TEMPERATURES LISTED ARE SUGGESTED GUIDELINES ONLY. ALL FOOD HOLDING SHOULD BE BASED ON INTERNAL PRODUCT TEMPERATURES. ALWAYS FOLLOW LOCAL HEALTH (HYGIENE) REGULATIONS FOR ALL INTERNAL TEMPERATURE REQUIREMENTS.**

# CLEANING AND PREVENTIVE MAINTENANCE

## PROTECTING STAINLESS STEEL SURFACES

It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the protective surface layer of stainless steel. Abrasive pads, steel wool, or metal implements will abrade surfaces causing damage to this protective coating and will eventually result in areas of corrosion. Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion. In addition, many acidic foods spilled and left to remain on metal surfaces are contributing factors that will corrode surfaces.

Proper cleaning agents, materials, and methods are vital to maintaining the appearance and life of this appliance. Spilled foods should be removed and the area wiped as soon as possible but at the very least, a minimum of once a day. Always thoroughly rinse surfaces after using a cleaning agent and wipe standing water as quickly as possible after rinsing.

## CLEANING AGENTS

Use non-abrasive cleaning products designed for use on stainless steel surfaces. Cleaning agents must be chloride-free compounds and must not contain quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel surfaces. Always use the proper cleaning agent at the manufacturer's recommended strength. Contact your local cleaning supplier for product recommendations.

## CLEANING MATERIALS

The cleaning function can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods must be employed, use a non-abrasive scouring pad on difficult areas and make certain to scrub with the visible grain of surface metal to avoid surface scratches. Never use wire brushes, metal scouring pads, or scrapers to remove food residue.

**⚠ CAUTION**

**TO PROTECT STAINLESS STEEL SURFACES, COMPLETELY AVOID THE USE OF ABRASIVE CLEANING COMPOUNDS, CHLORIDE BASED CLEANERS, OR CLEANERS CONTAINING QUATERNARY SALTS. NEVER USE HYDROCHLORIC ACID (MURIATIC ACID) ON STAINLESS STEEL. NEVER USE WIRE BRUSHES, METAL SCOURING PADS OR SCRAPERS.**

# CARE AND CLEANING

The cleanliness and appearance of this unit will contribute considerably to operating efficiency and savory, appetizing food. Good equipment that is kept clean works better and lasts longer.

### CLEAN THE UNIT THOROUGHLY AFTER EACH USE

1. Turn lights and adjustable thermostat(s) to the "OFF" position. Disconnect unit from power source, and let cool.
2. Remove, cover or wap, and store unused products under refrigeration.
3. Remove all detachable items such as wire shelves, side racks, and any drip pan. Clean these items separately.
4. Clean interior with a damp cloth or sponge and any good commercial detergent at the recommended strength.

5. Spray heavily soiled areas with a water soluble degreaser and let stand for 10 minutes, then remove soil with a plastic scouring pad.

**NOTE:** Avoid the use of abrasive cleaning compounds, chloride based cleaners, or cleaners containing quaternary salts. ***Never*** use hydrochloric acid (muriatic acid) on stainless steel.

6. Clean control panel, door vents, door handles, and door gaskets thoroughly since these areas harbor food debris.
7. Rinse surfaces by wiping with sponge and clean warm water.
8. Remove excess water with sponge and wipe dry with a clean cloth or air dry. Leave door open until interior is completely dry. Replace shelves.
9. Interior can be wiped with a sanitizing solution after cleaning and rinsing. This solution must be approved for use on stainless steel food contact surfaces.
10. To help maintain the protective film coating on polished stainless steel, clean the exterior of the cabinet with a cleaner recommended for stainless steel surfaces. Spray the cleaning agent on a clean cloth and wipe with the grain of the stainless steel.
11. Clean glass with a window cleaner.

**⚠ DANGER**

**DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.**

**DANGER**

**AT NO TIME SHOULD THE INTERIOR OR EXTERIOR BE STEAM CLEANED, HOSED DOWN, OR FLOODED WITH WATER OR LIQUID SOLUTION OF ANY KIND. DO NOT USE WATER JET TO CLEAN.**

**SEVERE DAMAGE OR ELECTRICAL HAZARD COULD RESULT.**

**WARRANTY BECOMES VOID IF APPLIANCE IS FLOODED**

# SANITATION

Food flavor and aroma are usually so closely related that it is difficult, if not impossible, to separate them. There is also an important, inseparable relationship between cleanliness and food flavor. Cleanliness, top operating efficiency, and appearance of equipment contribute considerably to savory, appetizing foods. Good equipment that is kept clean, works better and lasts longer.

Most food imparts its own particular aroma and many foods also absorb existing odors. Unfortunately, during this absorption, there is no distinction between GOOD and BAD odors. The majority of objectionable flavors and odors troubling food service operations are caused by bacteria growth. Sourness, rancidity, mustiness, stale or other OFF flavors are usually the result of germ activity.

The easiest way to insure full, natural food flavor is through comprehensive cleanliness. This means good control of both visible soil (dirt) and invisible soil (germs). A thorough approach to sanitation will provide essential cleanliness. It will assure an attractive appearance of equipment, along with maximum efficiency and utility. More importantly, a good sanitation program provides one of the key elements in the prevention of food-borne illnesses.

A controlled holding environment for prepared foods is just one of the important factors involved in the prevention of food-borne illnesses. Temperature monitoring and control during receiving, storage, preparation, and the service of foods are of equal importance.

The most accurate method of measuring safe temperatures of both hot and cold foods is by internal product temperature. A quality thermometer is an effective tool for this purpose, and should be routinely used on all products that require holding at a specific temperature.

A comprehensive sanitation program should focus on the training of staff in basic sanitation procedures. This includes personal hygiene, proper handling of raw foods, cooking to a safe internal product temperature, and the routine monitoring of internal temperatures from receiving through service.

Most food-borne illnesses can be prevented through proper temperature control and a comprehensive program of sanitation. Both these factors are important to build quality service as the foundation of customer satisfaction. Safe food handling practices to prevent food-borne illness is of critical importance to the health and safety of your customers.

HACCP, an acronym for Hazard Analysis (at) Critical Control Points, is a quality control program of operating procedures to assure food integrity, quality, and safety. Taking steps necessary to augment food safety practices are both cost effective and relatively simple. While HACCP guidelines go far beyond the scope of this manual, additional information is available by contacting:

**CENTER FOR FOOD SAFETY AND APPLIED NUTRITION FOOD AND DRUG ADMINISTRATION**
**1-888-SAFEFOOD**

| INTERNAL FOOD PRODUCT TEMPERATURES | | |
|---|---|---|
| **HOT FOODS** | | |
| DANGER ZONE | 40° TO 140°F | (4° TO 60°C) |
| CRITICAL ZONE | 70° TO 120°F | (21° TO 49°C) |
| SAFE ZONE | 140° TO 165°F | (60° TO 74°C) |
| **COLD FOODS** | | |
| DANGER ZONE | ABOVE 40°F | (ABOVE 4°C) |
| SAFE ZONE | 36°F TO 40°F | (2°C TO 4°C) |
| **FROZEN FOODS** | | |
| DANGER ZONE | ABOVE 32°F | (ABOVE 0°C) |
| CRITICAL ZONE | 0° TO 32°F | (-18° TO 0°C) |
| SAFE ZONE | 0°F or below | (-18°C or below) |

## THERMOSTAT & INDICATOR LIGHT SEQUENCE

Whenever the thermostat is turned "ON," the indicator light will indicate the power ON/OFF condition of the heating cable, and consequently, the cycling of the cabinet as it maintains the dialed cavity temperature. If this light does not illuminate after normal start-up, the main power source, thermostat, and/or indicator light must be checked. If the warming cabinet does not hold the temperature as dialed, the calibration of the thermostat must be checked. If the warming cabinet fails to heat or heats continuously with the thermostat "OFF," the thermostat must be initially checked for proper operation. If these items are checked and found to be in order, a continuity and resistance check of the heating cable should be made. SEE CIRCUIT DIAGRAM.

## THERMOSTAT CALIBRATION

The thermostat is precision calibrated at the factory. Normally, no adjustment or recalibration is necessary unless the thermostat has been mishandled in transit, changed or abused while in service. A thermostat with a sensing bulb operates on hydraulic pressure, consequently, any bending of the bulb results in a change in its volume, and alters the accuracy of the thermostat calibration.

A thermostat should be checked or recalibrated by placing a quality, thermal indicator at the center of an empty holding cavity. DO NOT CALIBRATE WITH ANY FOOD PRODUCT IN THE CABINET. The thermostat should be set, and should be allowed to stabilize at that setting for a minimum of one hour. The center of the thermal swing of the air temperature within the cabinet should approximately coincide with the thermostat setting.

If calibration is necessary, the calibration screw should be adjusted with great care. The calibration screw of the thermostat is located in the thermostat dial shaft. With the shaft held stationary, a minute, clockwise motion of the calibration screw appreciably lowers the thermostat setting. A reverse, or counter-clockwise motion appreciably raises the thermostat setting. After achieving the desired cycling of the thermostat, the calibration screw must be sealed. Place a few drops of enamel sealant directly on the calibration screw. *(Red nail polish or equivalent is acceptable.)*

05/08

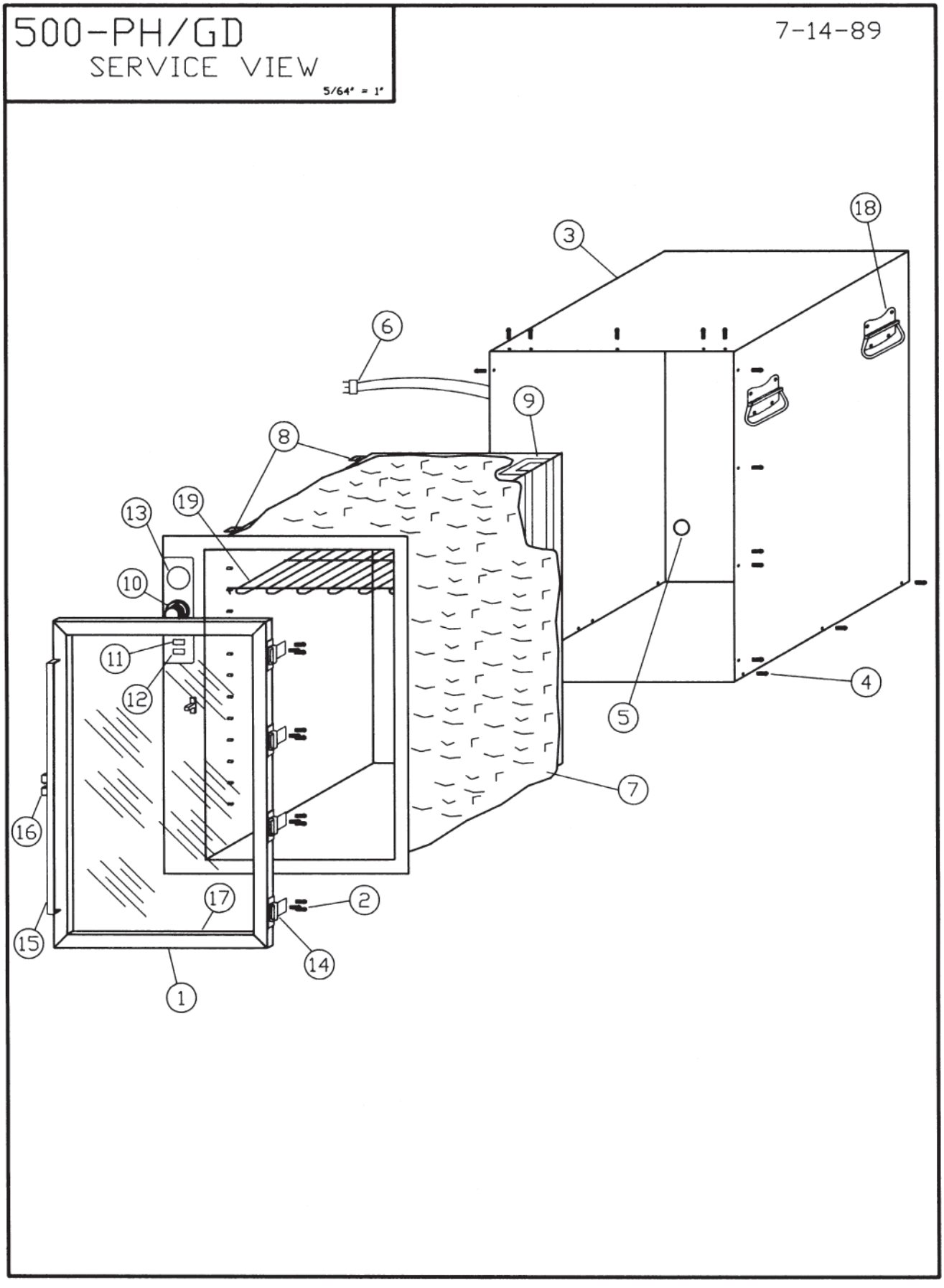
## 500-PH/GD

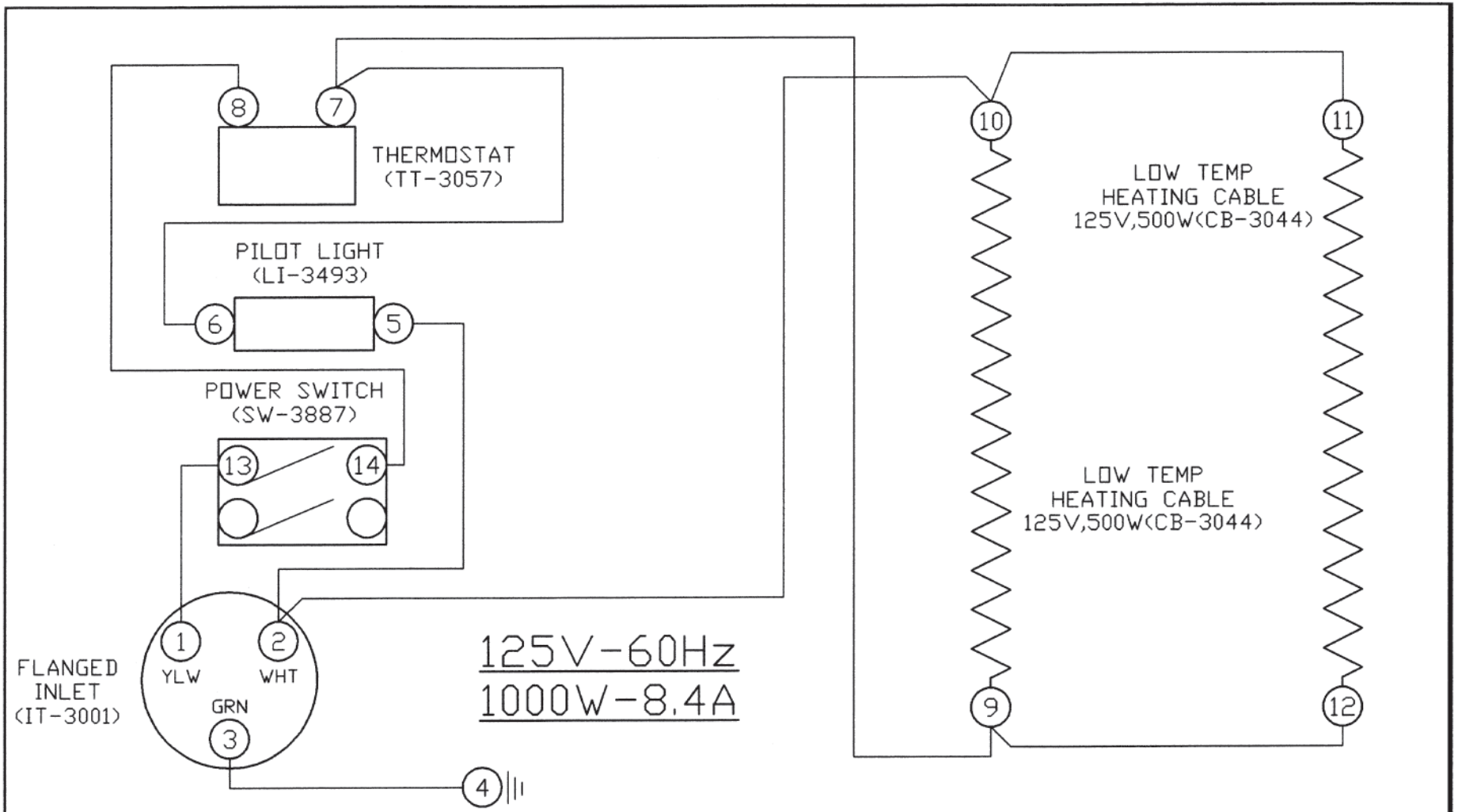
| PART DESCRIPTION | UNIT QTY | ALTO-SHAAM PART NO. |
|---|---|---|
| 1. GLASS DOOR ASSEMBLY | 1 | 4100 |
| 2. GLASS DOOR MOUNTING SCREWS | 12 | SC-2425 |
| 3. CASING | 1 | 1365 |
| CASING BOTTOM | 1 | 1383 |
| CASING BACK | 1 | 1393 |
| 4. CASING MOUNTING RIVETS | 20 | RI-2100 |
| 5. INLET (125V) | 1 | IT-3001 |
| INLET (230V) | 1 | IT-33173 |
| 6. CORD AND PLUG SET (125V) | 1 | CD-3029 |
| CORDSET: 230V INTL (TYPE HO7 RN-F) | 1 | CD-3984 |
| CORDSET: 230V (FOR USA USAGE) | 1 | CD-3858 |
| 7. INSULATION: 18" x 82" (457mm x 2082mm) | 1 | IN-2381 |
| 8. CABLE CONNECTION HARDWARE | | |
| 9. HEATING CABLE: Length 107' (32614mm) | 1 | CB-3044 |
| 10. THERMOSTAT | 1 | TT-3057 |
| THERMOSTAT KNOB (Fahrenheit) | 1 | KN-3469 |
| THERMOSTAT KNOB (Celsius) | 1 | KN-3474 |
| 11. HEAT INDICATOR LIGHT (125V) | 1 | LI-3493 |
| HEAT INDICATOR LIGHT (230V) | 1 | LI-3923 |
| 12. POWER SWITCH (125V) | 1 | SW-3887 |
| POWER SWITCH (230V) | 1 | SW-3887 |
| 13. TEMPERATURE GAUGE | 1 | GU-3273 |
| 14. HINGE SET (1 pair of 2 hinges) | 2 | HG-2047 |
| HINGE TO DOOR TO UNIT MTG. SCREWS | 8 | SC-2470 |
| 15. DOOR HANDLE | 1 | HD-2008 |
| DOOR HANDLE MOUNTING SCREWS | 2 | SC-2664 |
| 16. DOOR LATCH | 1 | LT-2040 |
| DOOR LATCH MOUNTING SCREWS | 4 | SC-2239 |
| 17. DOOR GASKET | 1 | GS-28460 |
| 18. CARRYING HANDLE | 4 | HD-2021 |
| CARRYING HANDLE MOUNTING SCREWS | 16 | SC-2070 |
| 19. SHELF | 13 | SH-2102 |
| **NOT SHOWN:** | | |
| DOOR, SOLID, RH | 1 | 15248 |
| HINGE SET FOR RH SOLID DOOR (15248) | 2 | HG-2015 |
| DOOR GASKET (15248): Length 9' (2743mm) | 1 | GS-2398 |

**SERVICE VIEW • Next Page**

**Cable Heating Service Kit . . . . . No. 4874**
includes:

| | | |
|---|---|---|
| CB-3044 | Cable Heating Element | 106 feet |
| CR-3226 | Ring Connector | 4 |
| IN-3488 | Insulation Corner | 8 feet |
| BU-3105 | Shoulder Bushing | 4 |
| BU-3106 | Cup Bushing | 4 |
| SL-3063 | Insulating Sleeve | 4 |
| TA-3540 | High Temperature Tape | 1 roll |
| NU-2215 | Hex Nut, 10-32 | 8 |
| ST-24-39 | Stud, 10-32 | 4 |


500-PH/GD
SERVICE VIEW
5/64" = 1"
7-14-89
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19




NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. #B-8082 FOR WIRE ASSEMBLIES

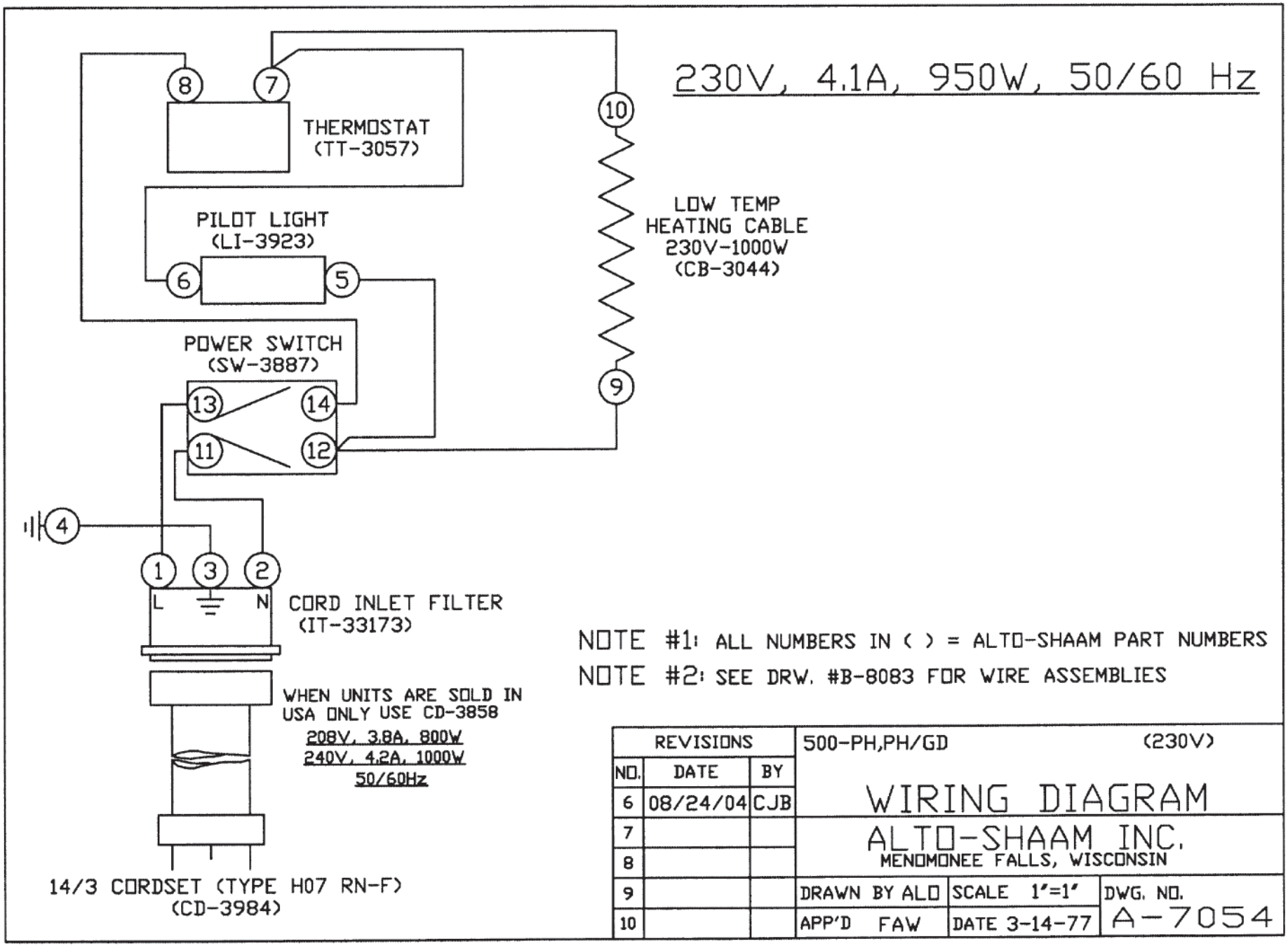
| REVISIONS | | |
|---|---|---|
| NO. | DATE | BY |
| 1 | 12-30-77 | LLK |
| 2 | 7-13-89 | ALO |
| 3 | 6-12-96 | RS |
| 4 | | |
| 5 | | |

500-PH,PH/GD (125V)

# WIRING DIAGRAM

ALTO-SHAAM INC.
MENOMONEE FALLS, WISCONSIN

| DRAWN BY ALO | SCALE 1"=1" | DWG. NO. |
|---|---|---|
| APP'D F.A.W. | DATE 12-30-77 | A-7053 |


230V, 4.1A, 950W, 50/60 Hz
8
7
THERMOSTAT
(TT-3057)
10
LOW TEMP
HEATING CABLE
230V-1000W
(CB-3044)
PILOT LIGHT
(LI-3923)
6
5
POWER SWITCH
(SW-3887)
13
14
11
12
9
4
1
3
2
L
N
CORD INLET FILTER
(IT-33173)
WHEN UNITS ARE SOLD IN
USA ONLY USE CD-3858
208V, 3.8A, 800W
240V, 4.2A, 1000W
50/60Hz
14/3 CORDSET (TYPE H07 RN-F)
(CD-3984)
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. #B-8083 FOR WIRE ASSEMBLIES
REVISIONS
NO. DATE BY
6 08/24/04 CJB
7
8
9
10
500-PH,PH/GD (230V)
WIRING DIAGRAM
ALTO-SHAAM INC.
MENOMONEE FALLS, WISCONSIN
DRAWN BY ALO
SCALE 1"=1"
DWG. NO.
APP'D FAW
DATE 3-14-77
A-7054

# TRANSPORTATION DAMAGE and CLAIMS

All Alto-Shaam equipment is sold F.O.B. shipping point, and when accepted by the carrier, such shipments become the property of the consignee.

Should damage occur in shipment, it is a matter between the carrier and the consignee. In such cases, the carrier is assumed to be responsible for the safe delivery of the merchandise, unless negligence can be established on the part of the shipper.

1. Make an immediate inspection while the equipment is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the material is moved to a storage area.

2. Do not sign a delivery receipt or a freight bill until you have made a proper count and inspection of all merchandise received.

3. Note all damage to packages directly on the carrier's delivery receipt.

4. Make certain the driver signs this receipt. If he refuses to sign, make a notation of this refusal on the receipt.

5. If the driver refuses to allow inspection, write the following on the delivery receipt:
   *Driver refuses to allow inspection of containers for visible damage.*

6. Telephone the carrier's office immediately upon finding damage, and request an inspection. Mail a written confirmation of the time, date, and the person called.

7. Save any packages and packing material for further inspection by the carrier.

8. Promptly file a written claim with the carrier and attach copies of all supporting paperwork.

We will continue our policy of assisting our customers in collecting claims which have been properly filed and actively pursued. We cannot, however, file any damage claims for you, assume the responsibility of any claims, or accept deductions in payment for such claims.

# ALTO-SHAAM LIMITED WARRANTY

Alto-Shaam, Inc. warrants to the original purchaser that any original part that is found to be defective in material or workmanship will, at Alto-Shaam's option, subject to provisions hereinafter stated, be replaced with a new or rebuilt part.

The labor warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first. Alto-Shaam will bear normal labor charges performed during standard business hours, and excluding overtime, holiday rates or any additional fees.

The parts warranty remains in effect for one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

However, the heating element on Halo Heat® cook/hold ovens and the refrigeration compressor on Alto-Shaam Quickchillers™ are warranted for a period of five (5) years from installation. The labor warranty is the same as stated above; namely, for one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first.

**THIS WARRANTY DOES NOT APPLY TO:**

1. Calibration.
2. Replacement of light bulbs and/or the replacement of display case glass due to damage of any kind.
3. Equipment damage caused by accident, shipping, improper installation or alteration.
4. Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions including, but not limited to, equipment subjected to harsh or inappropriate chemicals including, but not limited to, compounds containing chloride or quaternary salts, poor water quality, or equipment with missing or altered serial numbers.
5. Damage incurred as a direct result of poor water quality, inadequate maintenance of steam generators and/or surfaces affected by water quality. Water quality and required maintenance of steam generating equipment is the responsibility of the owner/operator.
6. Damage caused by use of any cleaning agent other than Alto-Shaam's Combitherm® Cleaner including, but not limited to, damage due to chlorine or other harmful chemicals. Use of Alto-Shaam's Combitherm® Cleaner on Combitherm® ovens is highly recommended.
7. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.
8. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal of any parts including legs, or addition of any parts.

This warranty is exclusive and is in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. In no event shall Alto-Shaam be liable for loss of use, loss of revenue or profit, or loss of product, or for any indirect or consequential damages. No person except an officer of Alto-Shaam, Inc. is authorized to modify this warranty or to incur on behalf of Alto-Shaam any other obligation or liability in connection with Alto-Shaam equipment.

**ALTO-SHAAM, INC.**

RECORD THE MODEL AND SERIAL NUMBER OF THE APPLIANCE FOR EASY REFERENCE.
ALWAYS REFER TO BOTH MODEL AND SERIAL NUMBER IN ANY CONTACT WITH ALTO-SHAAM REGARDING THIS APPLIANCE.

Model: _____ Date Installed: _____
Voltage: _____ Purchased From: _____
Serial Number: _____ _____

**W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 • U.S.A.**
PHONE: 262.251.3800 • 800.558-8744 USA/CANADA FAX: 262.251.7067 • 800.329.8744 U.S.A. ONLY
www.alto-shaam.com

PRINTED IN U.S.A.